

XVIII. *An abridged State of the Weather at London for One Year, commencing with the Month of March 1775, collected from the Meteorological Journal of the Royal Society.* By S. Horsley, LL. D. Sec. R. S.

R. June 27, 1776.

T A B L E I.

An abridged view of the WINDS at LONDON,  
for one year, beginning with March 1775.

	N	S	E	W	NW	SE	NE	SW		Rain.		Quarterly Rain.	Half-yearly Rain.
Mar.	1	1½	0	3	6½	1	1	17	31	1,854			
Apr.	1½	3½	0½	1½	3½	3	6½	10	30	1,068		3,474	
May	6	0	0	2½	6½	2	6½	7½	31	0,552			11,298
June	1	1	0½	1½	1	4½	14	6½	30	1,389			
July	1	2½	0	2	7½	2	2	14	31	4,232		7,824	
Aug.	0½	3	0½	2	3½	3½	1½	16½	31	2,203			
Sept.	0½	3½	0½	1½	1½	2½	5	15	30	5,192			
Oct.	1½	1½	0½	4	3½	0	2½	17½	31	2,919		10,560	
Nov.	4	0½	2	0	3	5½	9½	5½	30	2,449			
Dec.	2½	2½	1	0½	1	3	6	14	30½	0,576	{ Half day missed in the Journ.		15,813
Jan.	2½	1	4½	0	1½	3½	15½	2½	31	1,167		5,253	
Feb.	0½	1	1	0	0½	2	2	22	29	3,510			
	22½	21½	11	18½	39½	32½	72	148		27,111			

It



It appears, that the winds from the S.W. were again the most frequent of any, and next to these the winds from the N.E. Of the winds from the four cardinal points, the North was the most frequent, and the East the most rare. The autumn was the wettest quarter, and the spring the driest. The rain of the three summer months was almost half as much again as that of the three winter months; but the rain of the winter half-year exceeded that of the summer half-year by about one-sixth of the rain of the whole year. September gave the greatest quantity of rain, and May the least of any single month in the whole year.

TABLE II.

Sub-division of the S.W.

	WSW	SW	SSW	
March	5	5	7	17
April	3	4	3	10
May	3½	0½	3½	7½
June	3	3	0½	6½
July	4	7	3	14
August	3	2½	11	16½
September	6	3½	5½	15
October	5	7½	5	17½
November	0½	2½	2½	5½
December	3	6	5	14
January	1	0½	1	2½
February	8	6½	7½	22
	45	48½	54½	148

TABLE III.

Sub-division of the N.E.

	ENE	NE	NNE	
March	0	1	0	1
April	1	3	2½	6½
May	2	1½	3	6½
June	6	4	4	14
July	0½	1	0½	2
August	0½	0½	0½	1½
September	1½	1	2½	5
October	1	1	0½	2½
November	4	3½	2	9½
December	1½	2	2½	6
January	6½	6½	2½	15½
February	0½	1½	0	2
	25	26½	20½	72

TABLE

TABLE IV.

Sub-division of the S.E.

	ESE	SE	SSE	
March	0	0½	0½	1
April	1	1	1	3
May	0	1½	0½	2
June	1½	1½	1½	4½
July	0	0½	1½	2
August	0½	1½	1½	3½
September	1	1	0½	2½
October	0	0	0	0
November	1½	2½	1½	5½
December	0½	1	1½	3
January	0½	2	1	3½
February	0½	0	1½	2
	7	13	12½	32½

TABLE V.

Sub-division of the N.W.

	WNW	NW	NNW	
March	0½	3½	2½	6½
April	1½	1	1	3½
May	1½	4	1	6½
June	0	1	0	1
July	1½	5	1	7½
August	0	2½	1	3½
September	0½	1	0	1½
October	0½	2	1	3½
November	1	1½	0½	3
December	0	0	1	1
January	0	0½	1	1½
February	0	0½	0	0½
	7	22½	10	39½

Of the winds between the S. and W. those from the S.S.W. were this year the most frequent.

Here follows a general state of the winds, according to the degrees in which they prevailed respectively, collected from the five preceding tables.

ESE	WNW	WNW	E	SSE	SE	W	NNE	S	NW	N	ENE	NE	WSW	SW	SSW	
7	7	10	11	12½	13	18½	20½	21½	22½	22½	25	26½	45	48½	54½	365½
Missed in the journal,																½

TABLE VI.

Shewing the number of fair and frosty days in each half-month and in the whole year.

	Fair		Fair days in whole month.	Frosty days		Frosty days in whole months.
	1st half.	Latter half.		1st half.	Latter half.	
March	6	7	13		4	4
April	15	9	24			
May	13	13	26			
June	12	11	23			
July	1	9	10			
August	5	7	12			
September	1	11	12			
October	11	6	17		1	1
November	8	5	13	1	1	2
December	15	9	24	2	6	8
January	5	11	16	10	15	25
February	7	2	9	1		1
Total fair days,			199	Total frosty days,		41

There were eleven snowy days in this year, all in January, with the wind between the N. and E. The first snow fell on the 7th, and introduced the great frost, which set in in the day-time: for on the 7th, at 8 $\frac{1}{2}$  in the morning, it rained with the ther-

mmometer at 33°, wind E.N.E.; but, at 2 in the afternoon of the same day, the rain was turned into snow, and the thermometer was sunk to 31°. There was a short remission of the frost on the 18th, the thermometer at 8 in the morning of that day being at 33°; but it was sunk again to 30° at 2 in the afternoon. On the 31st, at 8 in the morning, it was at 13, 5, and only one degree higher the next morning, February 1st. The frost broke in the night between

between the 1st and 2d of February, the wind yet continuing N.E., from which quarter it had set almost all the time the frost lasted. It changed to the S.E. on the 2d, and on the 3d got into the S.W. where it remained almost all the rest of the month.

The following table shews the quantity of rain that fell with each wind in each month and in the whole year. It appears, that the S.W. gave more than two-thirds of the rain of the whole year, which seems not to have been altogether owing to the wet quality of that wind, but in great measure to the greater length of time it blew than any other. The numbers at the bottom of the table shew the proportional wetness of each wind upon the whole. They are made from the numbers in the last horizontal row but one of this table compared with the numbers in the last horizontal row of TAB. I. For the wetness of each wind is in proportion as the quantity of rain it gave in the whole year directly, and the number of days it blew inversely. The former is shewn by the numbers in the last row but one of TAB. VII.; and the latter by those in the last row of TAB. I. It appears, that the South wind was the driest of all, the S.W. the wettest, and the W. the next wettest.

T A B L E VII.

Shewing the quantities of rain which fell severally with each wind in every month and in the whole year.

	N	S	E	W	NW	SE	NE	SW	
Mar.	0	0		0,132	0,114	0,074	0,095	1,439	1,854
Apr.	0	0,016	0	0,386	0,143	0	0	0,523	1,068
May	0			0,058	0	0	0,052	0,442	0,552
June	0	0		0,768	0	0,495	0,098	0,028	1,389
July	0	0		0,155	0,528	0	0,214	3,335	4,232
Aug.	0	0,039	0,038	0	0	0,043	0	2,083	2,203
Sept.	0	0,107	0	0,378	0,184	0	0,542	3,981	5,192
Oct.	0,037	0	0,039	0	0,378	0	0	2,465	2,919
Nov.	0,211	0	0		0,969	0,208	0,409	0,652	2,449
Dec.	0	0	0	0,030	0	0	0	0,546	0,576
Jan.	0,079	0	0,091		0,075	0,031	0,447	0,444	1,167
Feb.	0	0,089	0		0	0,093	0,291	3,037	3,510
	0,327	0,251	0,168	1,907	2,391	0,944	2,148	18,975	27,111
	11 +	9 +	12 —	82 +	48	22 —	23 —	100	

T A B L E

T A B L E VIII.

For Trial of the MOON'S Influence.

	New.	1st Qr.	Full.	Last Qr.			Corrected by exclusion.
	D. H.	D. H.	D. H.	D. H.			
Mar.	1 10	8 16	16 20	24 2 New. 30 21	2 4 8 10 <u>13</u> 19 20 26 31	9 5 6 3	
	1st Qr.	Full.	Last Qr.	New.			
Apr.	7 11½	15 10	22 8	29 8	16 17 19 22 24 30	6 4 0 0	
May	7 6½	14 20½	21 14	28 21	1 6 8 13 20 27	6 1 2 0	
June	6 0	13 5	19 20	27 10	7 8 11 12 25 29	6 0 2 0	
July	5 14	12 12	19 4	27 1	4 6 16 23 27 28 30	7 4 7 4	
Aug.	4 2	10 19	17 14	25 17	1 5 9 14 16 18 22 27	8 5 7 4	
Sept.	2 12	9 3	16 4	24 9	5 7 16 19 20 22	6 3 3 2	
Oct.	1 20	8 13	15 22	24 0½ First Qr. 31 4	3 6 9 13 17 20 22 23 25 29 31	11 4 6 2	
	Full.	Last Qr.	New.	First Qr.			
Nov.	7 0½	14 19	22 14	29 11½	1 5 7 12 14 15 19 21 23 24 26 28 30	13 7 6 3	
Dec.	6 15	14 17	22 3	28 20	14 22 25 29 31	5 4 3 2	
Jan.	5 7	13 13	20 14½	27 6	2 5 7	3 2 3 2	
Feb.	4 2	12 6	19 1	25 19	2 3 5 6 8 11 14 16 20 22 25 27	12 7 8 5	
						92 46  53  27	

In this table, the changes of weather, which, having not been reverfed within 24 hours, fell on the days of octagonal aspect, are distinguished by a line drawn underneath the number.



From this table it appears, that, of 92 changes of weather in the whole year, 46 fell on the days of the Moon's pretended influence. And rejecting of these changes, all that were reversed within 24 hours, of 53 that remain in all, 27 fell on the days of lunar influence. And if from these again we reject the octantal days, confining the Moon's influence to the days of syzygie and quadrature, there still remain 14 of the 53 for these days.

Of the new Moons four only were attended with a change of weather, and of the full Moons three; namely, the new Moons of the months of March, July, December, and February; and the full Moons of October, November, January. Both the setting-in and the breaking of the great frost happened on days exempt from Lunar influence.

Upon the whole, the trial turns out more in favour of the Moon this year than it did the last. But still the changes were many more on the days confessedly exempt from her influence, than on those which have been supposed to be the most subject to it.

The greatest monthly height of the barometer was only four times in this year accompanied with a N.E. wind, namely, in the months of April, June, November, and February. It was five times attended with a S.W. namely, in March, May, August, September, and December; and the greatest height observed in the whole year was one of these, namely, in the month of March.

Once it was accompanied with the East wind, namely, in January; and twice with a N.W. namely, in July and October.

The least monthly height was once accompanied with a N.E. namely, in January; six times with a S.W. namely, in April, May, August, October, December, and February; twice with the South wind, namely, in March and September; once with the North, namely, in July; once with a S.E. in June; and once with a N.W. in November.

I subjoin a general view of the winds and rain in the two months of January and February 1775, which are not included in the preceding tables.

1775	N	S	E	W	NW	SE	NE	SW	Rain.	{ 5 days missed in the journal. 1 day missed.
Jan.	0	0	2	2	10	3½	4	4½	1,724	
Feb.	0½	1½	0	1	4	1½	1½	17	1,928	
	0½	1½	2	3	14	5	5½	21½		

Comparing this with the table p. 168. of the last volume, I find the general state of the winds and rain for the twelve months, beginning with March 1775, as follows:

N	S	E	W	NW	SE	NE	SW
23	21	16½	22½	51½	32½	72	119

## R A I N.

Quarterly rain		Half-yearly rain.	Year's rain.
Spring,	4,435	Summer, 12,486	} 24,662
Summer,	8,051		
Autumn,	6,718	Winter, 12,176	
Winter,	5,458		

But note, that in the space of these twelve months seven days in all were missed in the journal.